Database Upgrade Guide

Agile 9.2.2.1

TP1996-9.2.2.1A

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Preface

The Agile documentation set includes Adobe® Acrobat™ PDF files. The ***Oracle Technology Network (OTN) Web site*** (http://www.oracle.com/technology/documentation/index.html) contains the latest versions of the Oracle|Agile PLM PDF files. You can view or download these manuals from the Web site, or you can ask your Agile administrator if there is an Oracle|Agile Documentation folder available on your network from which you can access the Oracle|Agile documentation (PDF) files.

Note	To read the PDF files, you must use the free Adobe Acrobat Reader™ version 7.0 or later. This program can be downloaded from the ***Adobe Web site*** (http://www.adobe.com).

The ***Oracle Technology Network (OTN) Web site*** (http://www.oracle.com/technology/documentation/index.html) can be accessed through Help > Manuals in both the Agile Web Client and the Agile Java Client. If applicable, earlier versions of Oracle|Agile PLM documentation can be found on the ***Agile Customer Support Web site*** (http://www.agile.com/support).

If you need additional assistance or information, please contact support@agile.com or phone (408) 284-3900 for assistance.

Note	Before calling Agile Support about a problem with an Oracle|Agile PLM manual, please have ready the full part number, which is located on the title page.

Readme

Any last-minute information about Oracle|Agile PLM can be found in the Readme file on the ***Oracle Technology Network (OTN) Web site*** (http://www.oracle.com/technology/documentation/index.html).

Agile Training Aids

Go to the ***Agile Training Web page*** (http://training.agile.com) for more information on Agile Training offerings.

Preparing for the Upgrade

You can upgrade your database to Agile PLM 9.2.2.1 if you have any of the following products currently installed:

- Product Collaboration 8.5 SP1-SP7
- Product Service and Improvement 8.5 SP1-SP7
- Program Execution 8.5 SP2
- Product Cost Management 8.5 SP1
- Agile 9.0 SP1-SP7
- Agile 9.1 SP1-SP4
- Agile 9.2
- Agile 9.2.0.1
- Agile 9.2.0.2
- Agile 9.2.1
- Agile 9.2.1.1
- Agile 9.2.1.3
- Agile 9.2.1.4
- Agile 9.2.1.5
- Agile 9.2.2

The upgrade tool takes inputs from a property file and completes the upgrade using your existing database as the source database, while the newly created 9.2.2.1 database is the destination database.

Preparing the System

Note   You should prepare a separate test environment to become familiar with the upgrade procedure.

If you are upgrading from an 8.5 product and your Oracle 8i home is not local to the machine where your database will be installed, you must map a local drive on the destination machine to point to the existing Oracle 8i home.

Agile PLM supports Oracle 9i and 10g databases. You MUST install either Oracle 9i or 10g on the system where you are installing the Agile database before starting the upgrade. Use the instructions in the *Agile PLM Database Installation Guide* to install Oracle 9i Release 2 or Oracle 10g Release 2, if it is not already installed.

Also, if you are upgrading from an 8.5 product, you should create a new Oracle instance for the new Agile PLM product version and try to reuse the existing 8.5 Oracle instance. It is further recommended that the new Oracle instance is created on Oracle 10g to take advantage of the latest Oracle features.

You must also have JRE 1.4.2 installed and the JAVA_HOME environment variable should be set with the same JRE on the system where the AUT is run.

Downloading the Software

The automated upgrade tool software can be downloaded from the Agile Support Website (http://www.agile.com/support). The software should be downloaded to your destination database server.

Extract the AUT.zip file to a local drive. After the AUT is extracted, all of the files are located in an AUT directory on the local drive. In this document, this directory is known as the AUT_HOME.

Note   As a result of SQL script optimization, the size of the AUT.zip file is now reduced to approximately 40 MB (earlier 100 MB), enabling faster download.

Creating the Agile PLM 9.2.2.1 Database Instance

The Agile PLM 9.2.2.1 database instance must be created before you can upgrade your existing database. The 9.2.2.1 database will be used as the destination database during the upgrade process.

To create the Agile PLM 9.2.2.1 database instance, follow the instructions in the "Starting the Installer" section of the *Agile PLM Database* Installation *Guide*, based on your specific operating system.

After the 9.2.2.1 database instance is created, run the useragile.sql script, located in the $AUT_HOME\scripts\Oracle\utilities\script_tools directory, to create a new, empty user in the database.

Note   Change the token values inside of the % symbols in the useragile.sql file before running the script.

Validating the Databases

You should validate the source and destination databases to ensure a successful upgrade by performing the following checks:

▫ Run the latest averify script on the source database and fix any errors.

▫ For each database to be upgraded, you should know the following:

   • Source and destination database user and password

   • Destination system user and password

   • TNS configuration for source and destination database on the respective database systems

   • Paths to the Oracle Homes

▫ Map the source and destination Oracle Homes, if necessary.

▫ Validate the TNS entries of the source and destination databases.

   On a command line, change ORACLE_HOME to point to the Oracle Home of the source database, then try to connect to it. Repeat this procedure for the destination database.

▫ Make sure the destination database user is empty and does not contain any schema objects in its schema.

Note	This does not apply if your source database will also be your destination database.

▫ Make sure the source and destination database users have the same roles and privileges.

▫ Make sure the Agile tablespaces in the destination and source databases match. Also, the destination database should have unlimited tablespace.

▫ Verify that the tablespace size in the destination database is more than that of the source database.

Understanding the Property Files

This chapter includes the following:

AUT uses property files to supply the input information to the database scripts. If you are not upgrading a Product Cost Management 8.5 or Program Execution 8.5 database, you should only complete the aut.properties file. If you are also upgrading a Product Cost Management 8.5 or Program Execution 8.5 database, you should complete either the psupgrade.properties file or the peupgrade.properties file, in addition to the aut.properties file.

The aut.properties File

AUT uses property files to supply the input information to the database scripts. If you are not upgrading a Product Cost Management 8.5 or Program Execution 8.5 database, you should only complete the aut.properties file. If you are also upgrading a Product Cost Management 8.5 or Program Execution 8.5 database, you should complete either the psupgrade.properties file or the peupgrade.properties file, in addition to the aut.properties file.

The aut.properties file, located in the $AUT_HOME\config directory, contains user-supplied information on the source and destination databases. The source database parameters contain information about the database to be upgraded. The destination database parameters contain information about the user and host details of the database where the source database is being upgraded. These parameters are used by the database scripts during the upgrade process.

Defining the aut.properties Parameters

The aut.properties is divided into the following sections:

▫ Source Details—the database you are upgrading

▫ Destination Details—the Agile PLM 9.2.2.1 database

▫ Averify Details—how averify errors are handled

▫ Import Warnings—how import warnings are handled

▫ 8.5 Only Details—which Agile 8.5 components you are upgrading

Each parameter is followed by an example displaying the correct format for each parameter value.You must complete the source and destination details in order for the AUT to proceed with the upgrade.

Source Details

Parameter	Value definition
src.jdbc.url	The JDBC connection string to the source database. The format is jdbc:oracle:thin@*<SOURCE_DB_HOST_NAME>:<PORT>:<SID>* where *SOURCE_DB_HOST_NAME* is the hostname of the source database, *PORT* is the listener port of the source database (1521 is the default), and *SID* is the database instance.
src.jdbc.driver	The database driver of the source database. The default is oracle.jdbc.driver.OracleDriver.
src.db.user	The database user of the source database.
src.db.password	The encrypted database password of the source database. Use the encryptpwd utility located in the $AUT_HOME\bin directory to encrypt the password.
src.tns.name	The TNS entry name in the Oracle Home of the source database.
src.oracle.home	The Oracle Home of the source database. This value can be a mapped drive on the system where the AUT is run which points to the shared folder on the host machine. Note Use either double back slashes or a forward slash for directory separation, for example, d:/oracle/ora92.
src.db.backup	Back up or do not back up the database into a dump file. If true, then the source database is backed up by exporting the database user into a dump file located at $AUT_HOME\workingdir\AgileSrcDbBackup.dmp. If you are also upgrading a Product Cost Management or Program Execution database, their respective dump files are named Agile85pcmBACKUP.dmp and Agile85peBACKUP.dmp.

Destination Details

Parameter	Value Definition
dest.jdbc.url	The JDBC connection string to the destination database. The format is jdbc:oracle:thin@*<DESTINATION_DB_HOST_NAME>*:*<PORT>*:*<SID>* where *DESTINATION_DB_HOST_NAME* is the hostname of the destination database, *PORT* is the listener port of the destination database (1521 is the default), and *SID* is the database instance.
dest.jdbc.driver	The database driver of the destination database. The default is oracle.jdbc.driver.OracleDriver.
dest.db.user	The database user of the destination database.
dest.db.password	The encrypted database password of the destination database. Use the encryptpwd utility located in the $AUT_HOME\bin directory to encrypt the password.
dest.db.system.user	The user of the system account on the destination database instance.
dest.db.system.password	The encrypted password of the system user account on the destination database instance.
dest.tns.name	The TNS entry name in the Oracle Home of the destination database.
dest.oracle.home	The Oracle Home of the destination database. This value can be a mapped drive on the system where the AUT is run which points to the shared folder on the host machine. Note Use either double back slashes or a forward slash for directory separation, for example, d:/oracle/ora92.
sourceEqualsDest	Determines if the source database is upgraded to the destination database with or without the database user. If true, then the source database is upgraded without exporting and importing the database user to the destination database. This means that the same user is upgraded instead of upgrading to a different user on the destination database. This does NOT apply if your source and destination databases are on different versions of the Oracle database. Also, when this value is set to true, the AUT does not import and export unless a value for the src.db.backup parameter is specified. If this parameter is set to true, the following destination database details are not required: •dest.jdbc.url •dest.jdbc.driver •dest.db.user •dest.db.password •dest.tns.name

Averify Details

Parameter	Value Definition
averify.error.count	Specifies the number of averify errors to occurs before the AUT stops the upgrade. Specify **-1** to ignore the errors and continue with the upgrade.

Import Warnings

Parameter	Value Definition
ignore.imp.warnings	Decide if the AUT ignores the import warnings or not while importing the database. If set to true, the warnings are ignored. AUT will stop if there is a critical error.

File Manager Internal Locator Details

Parameter	Value Definition
file.manager.internal.locator	Specifies the location of the file manager. The content_url column in files table is upgraded with an encrypted URL based on the file type. This URL is used after upgrading for full text search configuration. The format is http://*<FILE_MANAGER_HOST>:<PORT>*/Filemgr/AttachmentServlet.

Destination Version

Parameter	Value Definition
dest.version	The version of the upgraded Agile PLM database. The default value is 9.2.2.1.

Language Details

Parameter	Value Definition
i18n.lang	Specifies the language of the operating system where the database is located. The values are English, Japanese, Chinese, or French.

8.5 Only Details

Parameter	Value Definition
isPC	Each of the parameters must have a value if the source database is either 8.5 or 8.5 SPx only. Set the parameter to true for the components that are installed on the source database and to false for the components that are not installed.
isPSI	
isPCM	
isPE	
username.migration.action	Determine how you want the Agile users in the source database to appear in the destination database. The value is set as the number of one of the following choices: 1. FIRSTNAME LASTNAME 2. LASTNAME FIRSTNAME 3. FIRSTNAME, LASTNAME 4. LASTNAME, FIRSTNAME 5. None of the above. FIRSTNAME will be migrated to LASTNAME. If your database contains mixed cases, choose the option that reflects the format for most of your users. The remaining users must be migrated manually after the upgrade.
gmt.timezone.difference	The GMT time zone of your database. The database and Agile application server must be on the same GMT time zone. The GMT time zone format is six characters, (+ or -)hh:mm, for example, GMT would be -00:00.

Note	If you are upgrading from Product Cost Management or Program Execution only, then leave all Source detail properties blank in the aut.properties file.

The psupgrade.properties File

The psupgrade.properties file, located in the $AUT_HOME\config directory, contains user-supplied information on the existing Product Cost Management database. During an upgrade of a Product Cost Management database, the data is merged into the Agile PLM database. The parameters in the file are used by the database scripts during the upgrade process to determine how the data is migrated. This file should be completed in addition to the aut.properties file if you are migrating a Product Cost Management database.

It is recommended to perform a test upgrade of the Product Cost Management database with reports to evaluate the database and make any necessary corrections before performing the actual data migration.

Defining the psupgrade.properties Parameters

Parameter	Value Definition
pcm.jdbc.url	The JDBC connection string to the Product Cost Management database. The format is jdbc:oracle:thin@*<SOURCE_DB_HOST_NAME>:<PORT>:<SID>* where *SOURCE_DB_HOST_NAME* is the hostname of the Product Cost Management database, *PORT* is the listener port of the database (1521 is the default), and *SID* is the database instance.
pcm.jdbc.driver	The database driver of the Product Cost Management database. The default is oracle.jdbc.driver.OracleDriver.
pcm.db.user	The database user of the Product Cost Management database.
pcm.db.password	The encrypted database password of the Product Cost Management database. Use the encryptpwd utility located in the $AUT_HOME\bin directory to encrypt the password.
pcm.tns.name	The TNS entry name in the Oracle Home of the source database.
pcm.oracle.home	The Oracle Home of the Product Cost Management 8.5 database. Note Use either double back slashes or a forward slash for directory separation, for example, d:/oracle/ora92.
generate.pcm.reports	Set this parameter to true to generate a report about the data contained in the Product Cost Management database before migration. The report will display data matching the following rules: 1. Update firstname, lastname, and user organization for the matched user login ID, if you set the update.matched.user.data parameter to true. 2. Migrate the Product Cost Management Items not found in Agile 8.5, if you set the migrate.pcm.items.not.found.in.pc parameter to true. 3. Convert all manufacturer names to uppercase, if you set the convert.mfrName.to.upperCase parameter to true. 4. Update all Agile 8.5 manufacturer data with the Product Cost Management manufacturer data for the same manufacturer, if you set the update.matched.mfr.data parameter to true. 5. Migrate Product Cost Management manufacturer parts not found in Agile 8.5, if you set the migrate.pcm.mpns.not.found.in.pc to true. If you set this parameter to false, migration will proceed without a report being generated. If you choose to have a report generated, AUT will stop. After viewing the report and you are satisfied with the results, change this parameter to false and run AUT again.
report.folder.location	Location where you want the report to be generated.
update.matched.user.data	If set to true, the firstname, lastname, and user organization are updated based on matching users in the Agile 8.5 database.

Parameter	Value Definition
migrate.pcm.items.not.found.in.pc	If set to true, all Product Cost Management items not found in the Agile 8.5 database are migrated.
convert.mfrName.to.upperCase	If set to true, all manufacturer names are converted to uppercase.
migrate.pcm.mpns.not.found.in.pc	If set to true, all Product Cost Management manufacturer parts not found in the Agile 8.5 database are migrated.
update.matched.mfr.data	If set to true, all Agile 8.5 manufacturer data is updated with the Product Cost Management data for the same manufacturer.
expiry.date.to.remove.prices	Removes prices based on the entered expiration date. All prices previous to the entered date are removed. If no date is entered, the prices are checked against the current date. Enter a date in the following format: MM-DD-YYYY.
migrate.suppliers.with.autonumber	If set to true, all suppliers are given autonumbers. If set to false, you must provide a supplier code map file and add its location to the supplier.code.crossref.filepath parameter. The file should be in the form of comma separated text file with the heading in the first line as supplierName,supplierCode Agile,agil EMS1,emsCode1
supplier.code.crossref.filepath	Location of the supplier code map file.
iFS Details*	
copy.files	If set to true, the file attachments are copied.
src.ifs.folder	The mapped drive location of the local iFS files folder.
src.ifs.schema	The database user of the Product Cost Management database.
dest.ifs.folder	The path where the upgraded file vault will be located.
dest.ifs.schema	The database user of the destination database.
*After the database is upgraded, you will need to run the IFS Reorganization tool to restructure the file vault to match the current format. For more information on this tool, see the Installation Guide.	

The peupgrade.properties File

The peupgrade.properties file, located in the $AUT_HOME\config directory, contains user-supplied information on the existing Program Execution database. During an upgrade of a Program Execution database, the data is merged into the Agile PLM database. The parameters in the file are used by the database scripts during the upgrade process to determine how the data is migrated. This file should be completed in addition to the aut.properties file if you are migrating a Program Execution database.

It is recommended to perform a test upgrade of the Program Execution database with reports to evaluate the database and make any necessary corrections before performing the actual data migration.

Defining the peupgrade.properties Parameters

Parameter	Value Definition
pe.jdbc.url	The JDBC connection string to the Program Execution database. The format is jdbc:oracle:thin@*<SOURCE_DB_HOST_NAME>:<PORT>:<SID>* where *SOURCE_DB_HOST_NAME* is the hostname of the Program Execution database, *PORT* is the listener port of the database (1521 is the default), and *SID* is the database instance.
pe.jdbc.driver	The database driver of the Program Execution database. The default is oracle.jdbc.driver.OracleDriver.
pe.db.user	The database user of the Program Execution database.
pe.db.password	The encrypted database password of the Program Execution database. Use the encryptpwd utility located in the $AUT_HOME\bin directory to encrypt the password.
pe.tns.name	The TNS entry name in the Oracle Home of the Program Execution database.
pe.oracle.home	The Oracle Home of the Program Execution database. **Note** Use either double back slashes or a forward slash for directory separation, for example, d:/oracle/ora92.
create.del.subclass	If set to true, the Deliverables subclass will be created after upgrade for data currently in that subclass. If set to false (default, the data currently in the Deliverables subclass will be migrated to the Tasks subclass after upgrade.
generate.pe.reports	If set to true, a report on any circular dependencies in the data is generated and no data is migrated. If set to false, no report is generated and the data is migrated. If you choose to have a report generated, AUT will stop. After viewing the report and correcting the dependencies, change this parameter to false and run AUT again.
report.folder.location	Location where you want the report to be generated.
pe.weekend.days	Comma-separated numbers representing the weekend days in a week. The default days are Saturday and Sunday. Format: 1,7
currency.description	Base currency. The default is US Dollars (USD).
iFS Details*	
copy.files	If set to true, the file attachments are copied.
src.ifs.folder	The mapped drive location of the local iFS files folder.
src.ifs.schema	The database user of the Program Execution database.
dest.ifs.folder	The path where the upgraded file vault will be located.
dest.ifs.schema	The database user of the destination database.
*After the database is upgraded, you will need to run the IFS Reorganization tool to restructure the file vault to match the current format. For more information on this tool, see the Installation Guide.	

Upgrading the Agile Database to Agile PLM 9.2.2.1

This chapter includes the following:

Running the Automated Upgrade Tool

Before running the AUT:

□ Make sure you have completed all of the pre-requisites listed in "Preparing for the Upgrade".

□ On Solaris, change the user permissions on all of the files under AUT_HOME in order for the upgrade log files to be created and the shell scripts under AUT_HOME/bin to be run.

□ Edit the property file with the correct values for your upgrade. See "***Understanding the Property Files*** (on page 9)" for more information

To run the AUT:

Go to the $AUT_HOME\bin directory and run the aut.bat (Windows) or aut.sh (Solaris) script.

Checking the Status of the Upgrade

You can monitor the status through the log files that are generated during the upgrade. The $AUT_HOME\logs directory contains all of the upgrade-related log files. AUT.log is the main log file for the upgrade. Separate directories are created for the logs generated by averify and the database scripts. These log files are located in the averifylogs and oracle subdirectories.

Troubleshooting the Upgrade

The following list describes some problems that can occur during the database upgrade:

What if I can't resolve my TNS service name?

If the TNS service name cannot be resolved, then the service name specified in the aut.properties file is not correctly defined in the tnsnames.ora file.

Perform the following checks to fix the error:

- Verify that a tnsnames.ora file exists and is in the correct place. See your Oracle documentation for more information on the required name and location.

- Verify that the service name exists in one of the tnsnames.ora files. Add the service name, if necessary.

- Make sure there are no syntax errors in the tnsnames.ora file, especially unmatched parentheses or stray characters.

Why did I receive an Invalid User Name or Password error in the AUT.log file?

You may receive this error if the database connection was not successful. The following Oracle error messages may be displayed:

EXP-00004: invalid username or password

Cause: An invalid username or password was specified.

Action: Retry with a valid username and password.

ORA-01017: invalid username/password; logon denied

Cause: An invalid username or password was entered in an attempt to log on to Oracle. The username and password must be the same as was specified in a GRANT CONNECT statement. If the username and password are entered together, the format is username/password.

Action: Enter a valid username and password combination in the correct format.

What errors would I see if an import fails?

An import can end abnormally due to some of the following reasons:

IMP-00009: abnormal end of export file

Cause: The export file is probably from an aborted Export session.

Action: If so, retry the export and import.

IMP-00013: only a DBA can import a file exported by another DBA

Cause: The privileges needed to import an export file generated by a database administrator do not exist. Only a database administrator can import such files.

Action: The source and destination database users should have the same roles and privileges. Because the source database has the DBA role, the database destination should also have the role. If you do not want the destination database to have the DBA role, then remove the role from the source database and retry the upgrade.

IMP-00041: Warning: object created with compilation warnings

Cause: The object in the SQL statement following this error was created with compilation errors. If this error occurred for a view, it is possible that the base table of the view was missing or altered.

Action: This is a warning. The object may have to be recompiled before being used.

Why is AUT hanging?

AUT may not be hanging. Processes may be running that seem to take longer than others. For example:

- Indexes may be missing on the source database. If this is the case, averify may be running slowly.

- The import may be taking a longer time because it's a large database.

What should I do if AUT suddenly exits?

Check the AUT.log file. If no information is available, then the AUT could not start because of invalid settings. Check the pre-requisites and the contents of the aut.properties file before retrying.

If I have database connection problems, what Oracle errors will I get?

Database connection errors can occur if the SQL connection to the source or destination database is lost. Make sure that the database connections are available before running the AUT. If connection problems occur, you may see some of the following Oracle error messages:

ORA-01034: ORACLE not available

Cause: Oracle was not started. Possible causes include the following:

- The SGA requires more space than that was allocated for it.

- The operating system variable pointing to the instance is improperly defined.

Action: Refer to accompanying messages for possible causes and correct the problem mentioned in the other messages. If Oracle has been initialized, then on some operating systems, verify that Oracle was linked correctly.

ORA-01089: immediate shutdown in progress - no operations are permitted

Cause: The SHUTDOWN IMMEDIATE command was used to shut down a running Oracle instance, terminating any active operations.

Action: Wait for the instance to be restarted or contact the database administrator.

ORA-01090: shutdown in progress - connection is not permitted

Cause: The SHUTDOWN command was used to shut down a running Oracle instance, disallowing any connects to Oracle.

Action: Wait for the instance to restart or contact the database administrator.

ORA-12541: TNS: no listener

Cause: The connection request could not be completed because the listener is not running.

Action: Ensure that the supplied destination address matches one of the addresses used by the listener - compare the tnsnames.ora entry with the appropriate listener.ora file (or tnsnav.ora if the connection is by way of an interchange). Start the listener on the remote machine.

I received an ORA-00955 error in my AUT.log file. What should I do?

ORA-00955: name is already used by an existing object

Cause: An attempt was made to create a database object (such as a table, view, cluster, index, or synonym) that already exists. A user's database objects must have distinct names.

Action: Enter a unique name for the database object or modify or drop the existing object so it can be reused.

You can ignore this in the Agile schema because the object already exists. The upgrade process takes care of dropping the object and recreating it if there are any changes.

I received an ORA-00904 error. What should I do?

ORA-00904: MS_JAVA "."LONGNAME":Invalid Identifier.

Solution: Log in as the sys user and run the $ORACLE_HOME\javavm\install\initdbj.sql script.

I received an ORA-01555 error. What should I do?

ORA-01555: "snapshot too old (rollback segment too small" when using Automatic Undo Management (AUM).

Solution: The UNDO tablespace is too small. Increase the size of the UNDO tablespace. Note that the UNDO tablespace should be large enough to store the undo data generated by active transactions as well as those preserved to honor the undo retention setting.

Increase the value of the Undo_retention parameter. This is important for systems running long queries. The parameter's value should at least be equal to the length of the longest running query on a given database instance. This can be determined by querying the V$UNDOSTAT view once the database has been running for a while:

SQL> select max (maxquerylen) from v$undostat;

How long does it take the AUT to run?

The amount of time it takes the AUT to run depends on the database size. The amount of time needed to upgrade is also based on the database version of the source database. Import and export steps can be avoided by using the sourceEqualsDest property which also reduces the time.

Configuring the Agile PLM 9.2.2 Database

This chapter includes the following:

After the database has been configured and all averify errors have been fixed, you must run additional database scripts to reorganize the database and to enable Full Text Search in the Agile PLM 9.2.2.1 database.

Reorganizing the Database

Important The Agile PLM 9.2.2.1 database includes two user accounts, CTXSYS and AGILE. The following upgrade procedure is required for the database sizing and configuration of the CTXSYS and AGILE accounts.

After AUT is run, the upgraded schema and data have been validated. However, the data still needs to be analyzed and statistics generated to enable Cost-Based optimizer (CBO) and Full Text Search (FTS) support. There are eight Agile-specific tablespaces required for optimization. The Agile schema has to be reorganized for this optimization to occur.

To reorganize the upgraded schema:

1. On the database server, change to the following directory:

    (Windows) \oracle\admin\agile9\create

    (UNIX) $ORACLE_BASE/admin/$ORACLE_SID/create

2. Run the Agile9exp script.

    The Agile9exp.dmp file is created in the current folder. This dump file is used with the agile9imp script. Make sure the dump file can be imported successfully before proceeding to the next step.

3. Run the recreateagile script to drop the existing account and recreate the agile account and schema.

4. Run the agile9imp script to import the upgraded Agile 9 schema, including setup of CBO and FTS.

5. Rename the existing agile9exp.dmp file to agile9exp_upgrade9221.dmp for backup. Also rename the agile9exp.log file to agile9exp_upgrade9221.log.

6.   Run the Agile9exp script again.

   The Agile9exp.dmp file created can be used as a backup of the system after the Agile PLM 9.2.2.1 database reorganization.

7.   Rename the agile9exp.dmp file to agile9exp_reorg9221.dmp for backup. Also rename the agile9exp.log file to agile9exp_reorg9221.log.

8.   Change to the Agile9Tmp directory:

   (Windows) cd Agile9Tmp

   (UNIX) $ORACLE_BASE/admin/$ORACLE_SID/create

9.   Start SQL*Plus from a command line and log in as agile/tartan or agile/tartan@agile9.

10.   Run the agile9_check.sql file to validate the schema integrity and confirm integrity of the database reorganization:

   SQL> @agile9_check.sql

Important If errors are displayed, contact the Agile Support Center. All errors must be fixed before proceeding to the next step.

11.   Start the Oracle listener.

The following steps should only be performed after you have upgraded the Agile PLM application:

12.   Start the Agile application server.

13.   Shutdown the database.

14.   Perform a cold backup of all the database-related files.

15.   Restart the database, listener, and application server.

Running Full Text Search Scripts

The Full Text Search scripts are located in $AUT_HOME\scripts\oracle\utilities\script_tools. Using SQL*Plus from a command line, run the following scripts on your upgraded database:

▫   agile922_fts_prefs.sql on the CTXSYS user
▫   agile922_fts.sql on the upgraded Agile schema

Configuring the Agile SDK

If you are using the Agile SDK, delete the AgileSDK.cache directory from your client machines after you have upgraded the Agile PLM database and application server. The AgileSDK.cache directory is found under the temp directory (%temp%AgileSDK.cache).

Configuring PG&C

If you have the PG&C component installed, additional configuration may be needed for substance migration.

Substance migration is necessary if you meet ALL of the following requirements:

▫   Upgraded your database from Agile PLM 9.2 to Agile PLM 9.2.2.1.

▫   Imported the JGPSSI substances and substance groups.

▫   In Agile PLM 9.2.2.1, you want to use IPC declarations with IPC substances and substance groups. Note that the IPC list of substances and substance groups is slightly different than the JGP list of substances and substance groups.

Important   Contact your Agile Solutions Delivery representative to obtain the files needed for substance migration.

If you imported the JGPSSI substances in Agile PLM 9.2, but do not want to use the IPC substances, you can continue to use the JGPSSI substances without migrating.

Configuring PPM

With PPM objects, there should always be at least one user in the team, such as Owner. For every user on the team, a corresponding Access Control List (ACL) in the Share should exist. In the 9.0 and 9.1 releases of Agile PLM, a logged in user was allowed to delete all users from Share which included the owner's ACL.

You must clean the corrupted data in the ObjectACL database table to access the shared objects. The data cleanup involves replacing the deleted role with a valid, non-deleted equivalent role. The following SQL statement cleans all of the corrupted rows in ObjectACL table where a deleted role is assigned to a user with the valid role:

```
DELETE FROM TEAM WHERE ACTIVITY_ID<=0;


INSERT INTO OBJECTACL SELECT TEAM.activity_id,(SELECT CLASS FROM ACTIVITY WHERE
id=TEAM.activity_id),TEAM.user_id,',9506,',sysdate,sysdate FROM TEAM WHERE TEAM.user_id NOT IN
(SELECT USERID FROM OBJECTACL WHERE OBJECTACL.objid=TEAM.activity_id AND
OBJECTACL.objclass IN (18022,18387))
```

In the previous SQL statement, the Program Team Member role is generally assigned to a user and the ID for this out-of-box role is 9506.

The roleid values may differ, if you have customized your database. In this case, use the following SQL statement to obtain roleid values for each role in your database:

```
select ID from nodetable where parentid=5006 and value = '<name of role>';
```

The Agile Administrator is still allowed to delete a role assigned to a user in the object's ACL. If a role is deleted, an error message stating "Node <number> does not exist in cache" displays when the object is accessed.

Also, in earlier releases of Agile PLM, the Dashboard or other PPM-related home pages were allowed to be selected as the start page. In Agile PLM 9.2.2.1, a license check is added for default home pages. If any users have previously set their preferred Start Page and preferred Inbox to values that are related to PPM objects and PPM is no longer installed, run the following SQL statements to set the pages:

To set the Preferred Start Page to Home for all users:

update agileuser set PREFSTARTPAGE=1;

To set the Preferred Inbox View to Notifications if the Preferred Inbox View is Activities

update agileuser set PREFINBOXVIEW=3 where PREFINBOXVIEW=2;

Running the PPM Post Upgrade Utility

After you have upgraded your database and installed the Agile PLM 9.2.2.1 application, you must run the PPM Post Upgrade Utility to accommodate the business rule changes introduced in this new version. For information on how to run this utility, see the *Agile PLM Installation Guide* for your specific application server.

Upgrading from Agile PLM 9.2.1.1

If you created tasks, gates, or phases in Agile PLM 9.2.1.1, the icons do not appear when viewing baselines after upgrading to Agile PLM 9.2.2.1.

AUT Maintenance

Before you upgrade your database, you should always make sure you are using the latest version of the AUT. Changes to the scripts, like averify, may occur after the initial version has been released. So, to ensure your database is correctly upgraded, always check the Agile Support website for updates.

Updating the AUT

If updates are needed to the AUT, you can always find the latest version on the Agile Support Web Site (http://www.agile.com/support). Download the AUT.zip file and extract the file contents into the same directory where you originally extracted the files.

Running Averify

Averify performs an integrity check against the Agile database and reports on specific errors. Averify includes a check for missing indexes and inconsistent data stored in the various database tables. Averify only reports errors, and does not attempt to fix them or modify your database.

Running Averify and using the results to eliminate known errors is a prerequisite for diagnosing problems. Averify is not comprehensive, however, and finding zero errors does not certify a database as perfect.

When you download an updated version of AUT, the latest Averify scripts are also included. The latest Averify scripts are also available separately on the Agile Support Web Site (http://www.agile.com/support). You should run Averify periodically as part of your regular database maintenance procedures.

To run Averify:

16.   Make sure you have downloaded the latest version of AUT from the Agile Support Web Site.

17.   Make sure you have backed up your database.

18.   Go to the $AUT_HOME\scripts\oracle\utilities\averify directory.

19.   Using SQL*Plus from a command line, run the oracle_averify9x.sql script.

SQL> @oracle_averify9x.sql

Important   If errors are generated in the <name of file> located in the $AUT_HOME\scripts\oracle\utilities\averify directory, contact Agile Support.